



## Installation & Owner's Manual

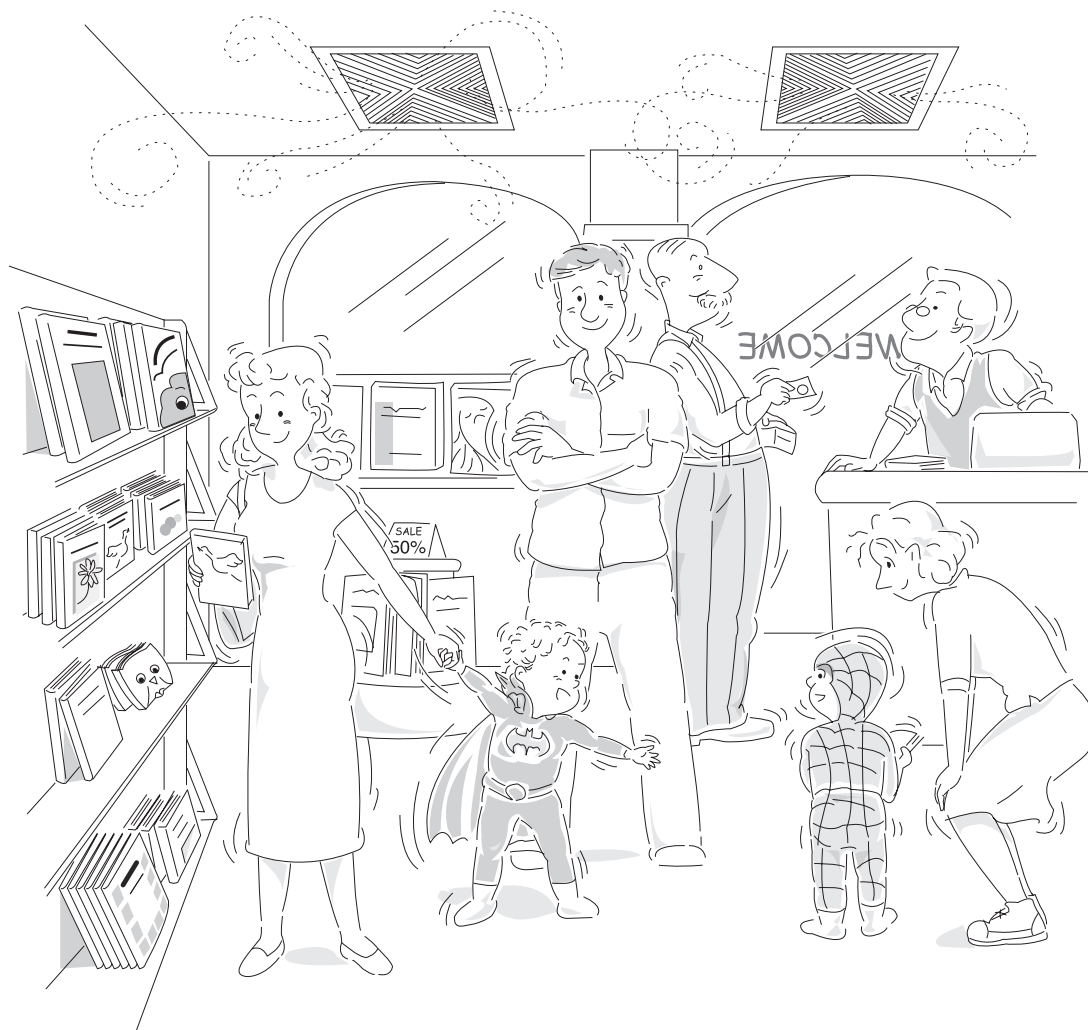
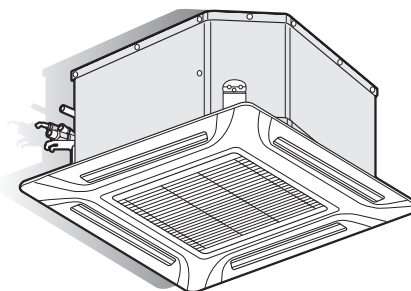
# MINISPLIT CASSETTE

AIR CONDITIONER

### MODELS

YKCC-YKHC 12-48

YKKC 07-18



R410A

EN 035M00054-001





Please read this installation manual carefully before starting the installation. It will tell you necessary information.

### Quality POLICY

We will continuously strive to satisfy our customers with consistent reliability in product, service and support through superior quality, service culture and distinctive technology.

## CONTENTS

Safety Precautions .....	3
Part Names .....	4
Technical Specifications .....	5
Dimensions .....	10
Installations .....	12
Condensate Drainage .....	19
Refrigerant Piping Connections .....	20
Wiring Diagrams .....	21
Optimal Operation .....	23
Adjusting Air Flow Direction .....	23
Emergency Operations .....	24
Maintenance .....	24
Operation Tips .....	26
Troubleshooting Guide .....	27
Declaration of Conformity .....	28

Refrigerant	DC INVERTER R-410A	
Model	18-24	36-48
Set	YKHCxxDSBAAR	YKHCxxDSBACR
Outdoor	YKJCxxDS-BAR	YKJCxxDS-BCR
Indoor	YKKCxxDS-BAR	YKKCxxDS-BCR

	Multi Inverter R-410A
	50Hz/1Ph
Outdoor	RRJCxxAA-AAA
Indoor	YKKCxxAA-AAR

Standard

Refrigerant	R-410A	
Model	12-24	30-48
Set	YKHCxxFSAAAR	YKHCxxFSAACR
Outdoor	YKJCxxFS-AAR	YKJCxxFS-ACR
Indoor	YKKCxxFS-AAR	YKKCxxFS-ACR

With Low Ambient Kit

Refrigerant	R-410A	
Model	12-24	30-48
Set	YKHCxxFSBAAR	YKHCxxFSBACR
Outdoor	YKJCxxFS-AAR	YKJCxxFS-ACR
Indoor	YKKCxxFS-AAR	YKKCxxFS-ACR

Refrigerant	R-410A	
Model	12-30	30-48
Set	YKCC/YKHCxxFSAAAA	YKCC/YKHCxxFSAAC
Outdoor	YKDC/YKJCxxFS-AAR	YKDC/YKJCxxFS-ACR
Indoor	YKEC/YKKCxxFS-AAR	YKEC/YKKCxxFS-ACR



## REQUIRED TOOLS

1. Screw driver
2. Hexagonal wrench
3. Torque wrench
4. Spanner
5. Reamer
6. Hole core drill
7. Tape measure
8. Thermometer
9. Manifold gauge
10. Gas leak detector
11. Vacuum pump
12. Pipe clamp
13. Pipe cutter
14. Flare tool set
15. Electrical circuit tester

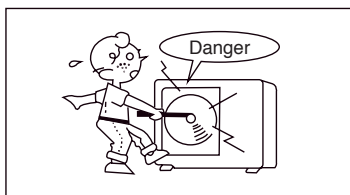
## EXTENDED PARTS

1. Refrigerant Pipe : See Technical Specification
2. Pipe insulation material (Polyethylene foam 9 mm thick)
3. Vinyl tape
4. Putty

## SAFETY PRECAUTIONS

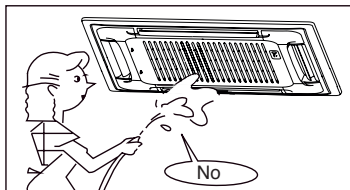
- Please read this installation manual carefully before starting installation of the unit.
- This air conditioning system contains refrigerant under pressure, rotating parts and electrical connection which may be dangerous and can cause injury. Installation and maintenance of this air conditioning system should only be carried out by trained and qualified personnel.
- After unpacking, please check the unit carefully for possible damage.
- Before undertaking any work on the unit, make sure that the power supply has been disconnected.

## WARNING & CAUTIONS



### CAUTION

Do not attempt to install this unit by yourself. This unit requires installation by qualified persons.



### DANGER

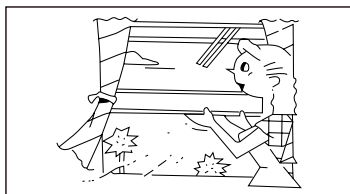
Do not attempt to service the unit yourself. This unit has no user serviceable components. Opening or removing the cover will expose you to dangerous voltage. Turning off the power supply will not prevent potential electric shock.

### DANGER

Never put hands or objects into the Air Outlet of indoor or outdoor units. These units are installed with a fan running at high speed. To touch the moving fan will cause serious injury.

### DANGER

To avoid the risk of serious electrical shock, never sprinkle or spill water or liquids on unit.



### WARNING

Ventilate the room regularly while the air conditioner is in use, especially if there is also a gas appliance in use in this room. Failure to follow these directions may result in a loss of oxygen in the room.

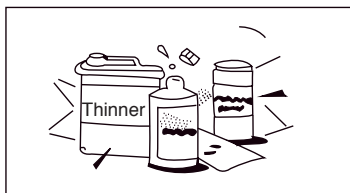
### WARNING

To prevent electric shock, turn off the power or disconnect the power supply plug before beginning any cleaning or other routine maintenance. Follow the directions for cleaning in this manual.



### WARNING

Do not use liquid cleaners or aerosol cleaners, use a soft and dry cloth for cleaning the unit. To avoid electric shock, never attempt to clean the unit by sprinkling water.



### WARNING

Do not use caustic household drain cleaners in the unit. Drain cleaners can quickly destroy the unit components (drain pan and heat exchanger coil, etc.)

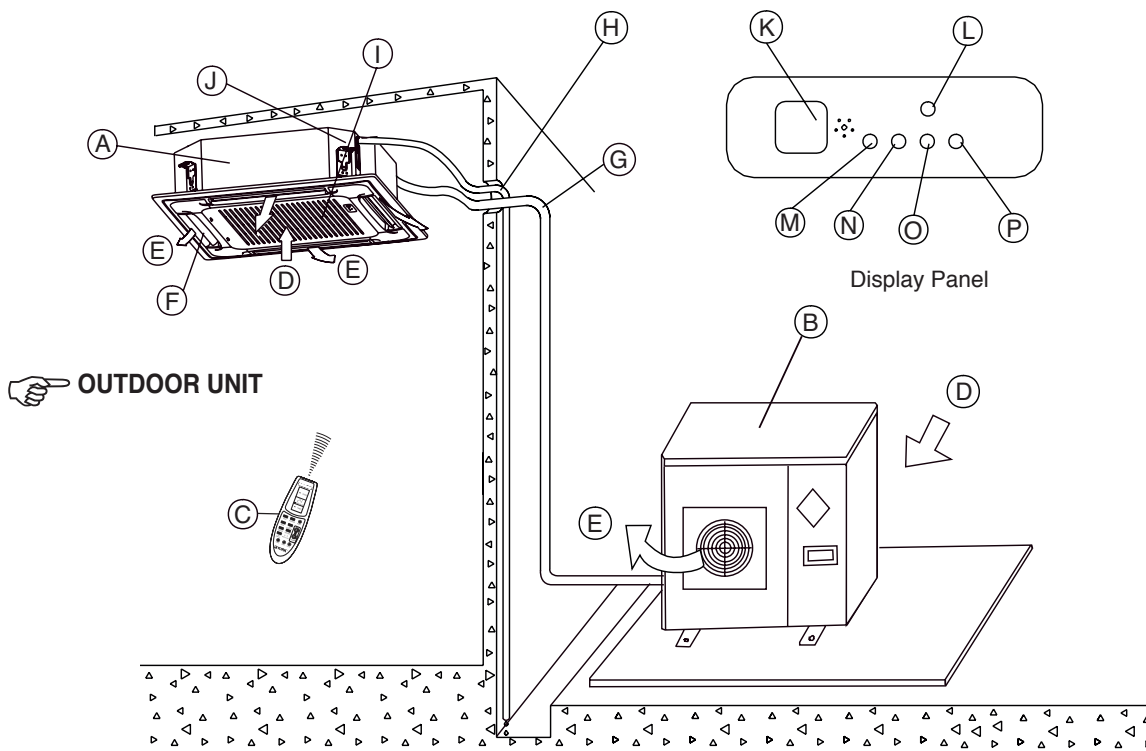
### WARNING

For proper performance, operate the unit in temperature and humidity ranges indicated in this manual. If the unit is operated beyond these conditions, it may cause abnormal functions of the unit or dew dripping from the unit.



# PART NAMES

## INDOOR UNIT



## INDOOR & OUTDOOR UNIT

- A. Indoor unit
- B. Outdoor unit
- C. Remote controller
- D. Air-in
- E. Air-out
- F. Air flow louver (at air outlet)
- G. Connecting pipe
- H. Drain hose
- I. Return Grill (with air filter)
- J. Drain pump (drain water from indoor unit)

## DISPLAY PANEL

- K. Infrared signal receiver
- L. Emergency button
- M. Running indicator
- N. Timer indicator
- O. Frost indicator (cooling and heating type)  
or fan indicator (cooling only type)
- P. Pump indicator

## NOTE

All the pictures in this manual are for explanation purpose only. They may be slightly different from the air conditioner you purchased. The actual shape shall prevail.

## OPERATING TEMPERATURE

Mode Temperature	Cooling operation	Heating operation	Drying operation
Room temperature	17°C~32°C	0°C~30°C	17°C~30°C
Outdoor temperature	21°C~43°C	-7°C~24°C	11°C~43°C

## CAUTIONS

- If air conditioner is used outside of the above conditions, certain safety protection features may come into operation which cause the unit to function abnormally.
- Room relative humidity is less than 80%. If the air conditioner operates in excess of this figure, the surface of the air conditioner may attract condensation. Please set the vertical air flow louver to its maximum angle (Vertically to the floor), and set HIGH fan mode.
- Optimum performance will be achieved within these operating temperature.



# TECHNICAL SPECIFICATIONS

## TECHNICAL SPECIFICATION: Ceiling Cassette YKHC “R-410A” -50Hz

Models			Indoor Unit	YKKC					
			12	18	24	30	36	48	
			Outdoor Unit	YKJC					
			12	18	24	30	36	48	
Power Supply			V/Ph/Hz	220-240/1/50			380/3/50		
			Ph	1	1	1	3	3	3
Power Consumption			W	1160/1156	1900/1900	2560/2500	3250/3250	3700/3350	4700/4900
Running Current			A	6.0/6.8	8.8/8.8	12.2/11	5.5/5.5	6.5/5.8	8.2/8.6
Refrigerant Type			R-410A						
Refrigerant Charge			gr	1120	2050	2600	3100	3100	4000
Noise level		Indoor	dB(A)	36	43	43	47	47	47
		Outdoor		43	48	55	57	57	58
Indoor Unit	Power Supply		V/Ph/Hz	220-240/1/50					
			Ph	1	1	1	1	1	1
	Fan	Air flow	m³/h	780	860	1050	1600	1600	1600
		Input Power	W	63	63	120	137	137	137
		Running Current	A	0.29	0.29	0.58	0.66	0.66	0.66
	Dimension	Height	mm	254	254	240	310	310	310
		Width	mm	580	580	840	840	840	840
		Depth	mm	580	580	840	840	840	840
	Weight		kg	21	21	36	40	40	40
	System Operation Control			Wireless Control with LCD Display					
Outdoor Unit	Power Supply		V/Ph/Hz	220-240/1/50Hz			380/3/50Hz		
			Ph	1	1	1	3	3	3
	Compressor	Qty	1	1	1	1	1	1	
		Compressor Type	Rotary			Scroll			
	Dimension	Height	mm	590	695	860	960	960	1245
		Width	mm	760	845	895	990	990	940
		Depth	mm	285	335	330	360	360	360
	Weight		kg	41.5	55	79	101	101	110
	Piping	Type		Flare + Nuts					
Pipe Size		Suction	inch	1/2	1/2	5/8	3/4	3/4	3/4
		Liquid	inch	1/4	1/4	3/8	1/2	1/2	1/2

**Remark:** The above design and specifications are subject to change without prior notice for product improvement.



# TECHNICAL SPECIFICATIONS

Technical Specifications Cassette Type YKCC/YKHC12-48 R410A-50Hz

York Model		Set	YKCC12FSAAR	YKHC12FSAAR	YKCC18FSAAR	YKHC18FSAAR	YKCC24FSAAR	YKHC24FSAAR	YKCC30FSAAR	YKHC30FSAAR
		Indoor	YKEC12FS-AAR	YKJC12FS-AAR	YKEC18FS-AAR	YKJC18FS-AAR	YKEC24FS-AAR	YKJC24FS-AAR	YKEC30FS-AAR	YKJC30FS-AAR
		Outdoor	YKDC12FS-AAR	YKJC12FS-AAR	YKDC18FS-AAR	YKJC18FS-AAR	YKDC24FS-AAR	YKJC24FS-AAR	YKDC30FS-AAR	YKJC30FS-AAR
Power supply		Ph-V-Hz	1,220-240V, 50Hz	1,220-240V, 50Hz	1,220-240V, 50Hz	1,220-240V, 50Hz	1,220-240V, 50Hz	1,220-240V, 50Hz	1,220-240V, 50Hz	1,220-240V, 50Hz
Cooling	Capacity	Btu/h	12000	12000	18000	18000	24000	24000	30000	30000
		kW	3.5	3.5	5.4	5.4	7.1	7.1	9.2	9.2
	Input	W	1200	1165	1900	1900	2600	2510	3450	3270
	Rated current	A	6	5.3	8.5	8.8	12.1	12.2	16.1	17
Heating	Capacity	Btu/h	/	13000	/	20500	/	27300	/	32000
		kW	/	3.8	/	6	/	8	/	9.4
	Input	W	/	1200	/	1900	/	2500	/	3232
	Rated current	A	/	6.8	/	8.8	/	11	/	14.7
Moisture Removal		L/h	1.2	1.2	1.8	1.8	2.4	2.4	3	3
Max. input consumption		W	1400	1950	2600	2300	3300	3300	5200	4620
Max. current		A	7.2	8.9	13	11.7	16.5	15.3	25	21
Starting current		A	26	26	36.8	36.8	61	61	97	97
Compressor	Type		ROTARY	ROTARY	ROTARY	ROTARY	ROTARY	ROTARY	SCROLL	SCROLL
	Input	W	1145	1145	1870	1870	2430	2430	3750	3650
	Rated current (RLA)	A	5.3	5.3	8.75	8.75	11.4	11.4	18.1	17.65
	Locked rotor Amp (LRA)	A	26	26	36.8	36.8	61	61	97	97
	Thermal protector		INNER	INNER	INNER	INNER	INNER	INNER	INNER	INNER
	Capacitor	µF	35	35	50	50	50	50	60	60
	Refrigerant oil	ml	480	480	750	750	950	950	1700	1700
Indoor fan motor	Input	W	64/57/48	63/57/47	64/57/48	63/57/47	128/105/43	128/105/43	140/100/45	140/100/45
	Running current (Hi/Med/Lo)	A	0.29/0.27/0.24	0.29/0.27/0.24	0.29/0.27/0.24	0.29/0.27/0.24	0.58/0.48/0.2	0.58/0.48/0.2	0.65/0.5/0.22	0.65/0.5/0.22
	Capacitor	µF	2.5µF/450V	2.5µF/450V	2.5µF/450V	2.5µF/450V	3.5µF/450V	3.5µF/450V	3.5µF/450V	3.5µF/450V
	Speed (Hi/Med/Lo)	r/min	930/830/660	930/830/660	930/830/660	930/830/660	680/600/330	680/600/330	670/570/340	670/570/340
Indoor coil	Number of rows		2	2	2	2	2	2	2	2
	Fin spacing	mm	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
	Fin type		Hydrophilic aluminum							
	Tube outside dia.	mm	Ø7							
	Material Type		Innergroove tube							
	Coil length x height x width	mm	1185x210x26.74	1185x210x26.74	1185x210x26.74	1185x210x26.74	1950x126x26.74	1950x126x26.74	1950x168x26.74	1950x168x26.74
Indoor air flow (Hi/Med/Lo)		m³/h	680/600/400	680/600/400	860/760/500	860/760/500	1050/900/500	1050/900/500	1600/1420/1200	1600/1420/1200
Indoor noise level (Hi/Med/Lo)		dB(A)	41/38/35	41/38/35	44/41/38	44/41/38	46/44/42	46/44/42	48/46/44	48/46/44
Indoor unit	Dimension (W*H*D) (body)	mm	580x254x580	580x254x580	580x254x580	580x254x580	840x240x840	840x240x840	840x310x840	840x310x840
	Packing (W*H*D) (body)	mm	750x340x750	750x340x750	750x340x750	750x340x750	1010x340x930	1010x340x930	1010x410x930	1010x410x930
	Net/Gross weight (body)	kg	21/30	21/30	21/30	21/30	36/43	36/43	40/47	40/47
	Dimension (W*H*D) (panel)	mm	650x30x650	650x30x650	650x30x650	650x30x650	950x40x950	950x40x950	950x40x950	950x40x950
	Packing (W*H*D) (panel)	mm	715x115x715	715x115x715	715x115x715	715x115x715	1030x145x1030	1030x145x1030	1030x145x1030	1030x145x1030
	Net/Gross weight (panel)	kg	3/5	3/5	3/5	3/5	6/11	6/11	6/11	6/11
Outdoor fan motor	Input	W	56	56	136	130	138	138	296	296
	Running current	A	0.27	0.27	0.61	0.592	0.66	0.66	1.38	1.38
	Capacitor	µF	2.5	2.5	3	2.5	3	3	10	10
	Speed	r/min	800	800	800	750	800	800	740	740
Outdoor coil	Number of rows		2	2	2	2	2	2	2	2
	Fin spacing	mm	1.5	1.4	1.7	1.8	1.5	1.5	1.7	1.7
	Fin type		Unhydrophilic aluminum	Hydrophilic aluminium	Unhydrophilic aluminium	Hydrophilic aluminium	Unhydrophilic aluminium	Hydrophilic aluminium	Unhydrophilic aluminium	Unhydrophilic aluminium
	Tube outside dia.	mm	Ø9.53							
	Material Type		Innergroove tube							
	Coil length x height x width	mm	651x559x44	651x559x44	775x660x44	775x660x44	850x810x44	850x810x44	955x915x44	955x915x44
Outdoor air flow		m³/h	2100	2100	2400	2400	3000	3000	5000	5000
Outdoor noise level		dB(A)	43	43	48	48	55	55	57	57
Outdoor unit	Dimension (W*H*D)	mm	760x590x285	760x590x285	845x695x335	845x695x335	895x860x330	895x860x330	990x960x360	990x960x360
	Packing (W*H*D)	mm	887x655x355	910x753x335	970x770x395	970x770x395	1043x915x395	1043x915x395	1120x1090x435	1120x1090x435
	Net/ Gross weight	kg	44/48	44/48	57/62	57/62	68/70	69/74	90/102	90/102
Refrigerant R-410A Quantity		g	1100	1120	2000	2050	2600	2600	3000	3450
Refrigerant piping	Liquid side	mm	6.35	6.35	6.35	6.35	9.53	9.53	12.7	12.7
	Gas side	mm	12.7	12.7	12.7	12.7	16	16	19	19
	Max. pipe length	m	25	25	25	25	30	30	30	30
	Max. difference in level	m	15	15	15	15	15	15	20	20

Remark: The above design and specifications are subject to change without prior notice for product improvement.



# TECHNICAL SPECIFICATIONS

## Technical Specifications Cassette Type YKCC/YKHC12-48 R410A-50Hz

York Model		Set	YKCC30FSAACR	YKHC30FSAACR	YKCC36FSAACR	YKHC36FSAACR	YKCC36FSAACR	YKHC36FSAACR	YKCC48FSAACR	YKHC48FSAACR
		Indoor	YKEC30FS-ACR	YKJC30FS-ACR	YKEC30FS-AAR	YKJC30FS-AAR	YKEC36FS-ACR	YKJC36FS-ACR	YKEC48FS-ACR	YKJC48FS-ACR
		Outdoor	YKDC30FS-ACR	YKJC30FS-ACR	YKDC30FS-AAR	YKJC30FS-AAR	YKDC36FS-ACR	YKJC36FS-ACR	YKDC48FS-ACR	YKJC48FS-ACR
Power supply		Ph-V-Hz	3,380V,50Hz	3,380V,50Hz	1,220-240V,50H	1,220-240V,50Hz	3,380V,50Hz	3,380V,50Hz	3,380V,50Hz	3,380V,50Hz
Cooling	Capacity	Btu/h	30000	30000	36,000	36,000	36000	36000	48000	48000
		kW	9.2	9.2	10.5	10.5	10.5	10.5	14	14
	Input	W	3450	3250	3800	3750	3800	3700	4900	4700
		Rated current	A	6.4	5.5	19.2	17	6.4	6.5	8.2
Heating	Capacity	Btu/h	/	32000	/	38000	/	39000	/	52000
		kW	/	9.5	/	11.1	/	11.4	/	15.2
	Input	W	/	3250	/	3720	/	3350	/	4900
		Rated current	A	/	5.5	/	16.8	/	5.8	/
Moisture Removal		L/h	3	3	3.6	3.6	3.8	3.8	4.8	4.8
Max. input consumption		W	5200	4620	5200	4620	5200	4620	6100	5870
Max. current		A	8.8	8.5	26.3	21	8.8	8.5	10.3	10.7
Starting current		A	61	61	97	97	61	61	66	66
Compressor	Type		SCROLL	SCROLL	SCROLL	SCROLL	SCROLL	SCROLL	SCROLL	SCROLL
	Input	W	3650	3650	3750	3650	3650	3650	4750	4750
	Rated current (RLA)	A	6.58	6.58	18.1	17.65	6.58	6.58	8.22	8.22
	Locked rotor Amp (LRA)	A	61	61	97	97	61	61	66	66
	Thermal protector		INNER	INNER	INNER	INNER	INNER	INNER	INNER	INNER
	Capacitor	µF	/	/	60	60	/	/	/	/
	Refrigerant oil	ml	1700	1700	1700	1700	1700	1700	1700	1700
Indoor fan motor	Input	W	140/100/45	140/100/45	140/100/45	140/100/45	140/100/45	140/100/45	140/100/45	140/100/45
	Running current (Hi/Med/Lo)	A	0.65/0.5/0.22	0.65/0.5/0.22	0.65/0.5/0.22	0.65/0.5/0.22	0.65/0.5/0.22	0.65/0.5/0.22	0.65/0.5/0.22	0.65/0.5/0.22
	Capacitor	µF	3.5µF/450V	3.5µF/450V	3.5µF/450V	3.5µF/450V	3.5µF/450V	3.5µF/450V	3.5µF/450V	3.5µF/450V
	Speed (Hi/Med/Lo)	r/min	670/570/340	670/570/340	670/570/340	670/570/340	670/570/340	670/570/340	670/570/340	670/570/340
Indoor coil	Number of rows		2	2	2	2	2	2	2	2
	Fin spacing	mm	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
	Fin type		Hydrophilic aluminum							
	Tube outside dia.	mm	Ø7							
	Material Type		Innergroove tube							
	Coil length x height x width	mm	1950x168x26.74	1950x168x26.74	1950x168x26.74	1950x168x26.74	1950x168x26.74	1950x168x26.74	1950x168x26.74	1950x168x26.74
Indoor air flow (Hi/Med/Lo)		m³/h	1600/1420/1200	1600/1420/1200	1600/1420/1200	1600/1420/1200	1600/1420/1200	1600/1420/1200	1600/1420/1200	1600/1420/1200
Indoor noise level (Hi/Med/Lo)		dB(A)	48/46/44	48/46/44	48/46/44	48/46/44	48/46/44	48/46/44	48/46/44	48/46/44
Indoor unit	Dimension (W"H"D) (body)	mm	840x310x840	840x310x840	840x310x840	840x310x840	840x310x840	840x310x840	840x310x840	840x310x840
	Packing (W"H"D) (body)	mm	1010x410x930	1010x410x930	1010x410x930	1010x410x930	1010x410x930	1010x410x930	1010x410x930	1058x410x930
	Net/Gross weight (body)	kg	40/47	40/47	40/47	40/47	40/47	40/47	40/47	40/47
	Dimension (W"H"D) (panel)	mm	950x40x950	950x40x950	950x40x950	950x40x950	950x40x950	950x40x950	950x40x950	950x40x950
	Packing (W"H"D) (panel)	mm	1030x145x1030	1030x145x1030	1030x145x1030	1030x145x1030	1030x145x1030	1030x145x1030	1030x145x1030	1030x145x1030
	Net/Gross weight (panel)	kg	6/11	6/11	6/11	6/11	6/11	6/11	6/11	6/11
Outdoor fan motor	Input	W	296	296	296	296	296	296	148X2	148X2
	Running current	A	1.38	1.38	1.38	1.38	1.38	1.38	0.7X2	0.7X2
	Capacitor	µF	10	10	10	10	10	10	3.5	3.5
	Speed	r/min	740	740	740	740	740	740	800	800
Outdoor coil	Number of rows		2	2	2	2	2	2	2	2
	Fin spacing	mm	1.7	1.7	1.7	1.7	1.7	1.7	1.8	1.8
	Fin type		Unhydrophilic aluminum	Unhydrophilic aluminium	Unhydrophilic aluminum	Unhydrophilic aluminium	Unhydrophilic aluminum	Unhydrophilic aluminium	Unhydrophilic aluminum	Hydrophilic aluminium
	Tube outside dia.	mm	Ø7 Ø9.53							
	Material Type		Innergroove tube							
Coil length x height x width		mm	955x915x44	955x915x44	955x915x44	955x915x44	955x915x44	955x915x44	715x1220x44	715x1220x44
Outdoor air flow		m³/h	5000	5000	5000	5000	5000	5000	6000	6000
Outdoor noise level		dB(A)	57	57	57	57	57	57	58	58
Outdoor unit	Dimension (W"H"D)	mm	990x960x360	990x960x360	990x960x360	990x960x360	990x960x360	990x960x360	940x1245x340	940x1245x340
	Packing (W"H"D)	mm	1120x1090x435	1120x1090x435	1120x1090x435	1120x1090x435	1120x1090x435	1120x1090x435	1058x1380x435	1058x1380x435
	Net/ Gross weight	kg	90/102	90/102	90/102	90/102	90/102	90/102	112/127	112/127
Refrigerant R-410A Quantity		g	3000	3100	3000	3450	3000	3100	3700	4000
Refrigerant piping	Liquid side	mm	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7
	Gas side	mm	19	19	19	19	19	19	19	19
	Max. pipe length	m	30	30	30	30	30	30	50	50
	Max. difference in level	m	20	20	20	20	20	20	30	30

**Remark:** The above design and specifications are subject to change without prior notice for product improvement.

# TECHNICAL SPECIFICATIONS

## TECHNICAL SPECIFICATION: EVEREST MULTI INVERTER "YKKC-RRJC" 50 Hz

### Indoor Unit Cassette Type YKKC07-18

Model			YKKC07AA-AAR	YKKC09AA-AAR	YKKC12AA-AAR	YKKC18AA-AAR
Power supply			Ph-V-Hz	1Ph, 220-240V~,50Hz	1Ph, 220-240V~,50Hz	1Ph, 220-240V~,50Hz
Capacity	Cooling Capacity	BTU/h	7,000	9,000	12,000	18,000
	Heating Capacity	BTU/h	8,500	11,000	14,000	21,000
Indoor fan motor	Power Input	W	63	63	63	63
	Capacitor	μF	1.5μF/450V	1.5μF/450V	1.5μF/450V	2.5μF/450V
	Speed (Hi/Mi/Lo)	r/min	750/660/540	750/660/540	830/730/680	930/830/660
Indoor coil	Number of rows		2	2	2	2
	Fin spacing	mm	1.3	1.3	1.3	1.3
	Fin type		Hydrophilic aluminium			
	Tube outside dia.	mm	Ø7.94			
	Tube Material		Innergroove tube			
Coil length x height x width			mm	1185x210x26.7	1185x210x26.7	1185x210x26.7
Indoor air flow (Hi/Mi/Lo)			m³/h	600/500/420	600/500/420	680/580/500
Indoor noise level (Hi/Mi/Lo)			dB(A)	36/33/30	36/33/30	43/40/38
Pipe size	Liquid side/Gas side	mm	Ø6.35/Ø9.53	Ø6.35/Ø9.53	Ø6.35/Ø12.7	Ø6.35/Ø12.7
Indoor unit (body)	Dimension (W*H*D)	mm	580x254x580	580x254x580	580x254x580	580x254x580
	Packing (W*H*D)	mm	750x340x750	750x340x750	750x340x750	750x340x750
	Net/Gross weight (body)	kg	21/28	21/28	21/28	28/36
Indoor unit (panel)	Dimension (W*H*D)	mm	650x30x650	650x30x650	650x30x650	650x30x650
	Packing (W*H*D)	mm	715x115x715	715x115x715	715x115x715	715x115x715
	Net/Gross weight (panel)	kg	3/5	3/5	3/5	3/5

### Outdoor Unit Multi Inverter RRJC18-27

Model			RRJC18AA-AAA		RRJC27AA-AAA		
Indoor Units Combination			Single	Double	Single	Double	Treble
Power supply			1Ph, 220-240V~,50Hz		1Ph, 220-240V~,50Hz		
Cooling	Capacity	Btu/h	7000~12000	18000	7000~12000	16000~24000	27000
	W		2050~3517	5275	2000~3500	4690~7000	7913
	Input	W	1000~1300	1813	1000~1300	2570~2850	2806
	Rated current	A	4.8~6.5	11.5	4.8~6.5	11.7~13.5	13.5
Heating	Capacity	Btu/h	9000~14000	21000	10000~14000	24000~27000	30000
	W		2638~4103	6155	2900~4100	7000~7900	8792
	Input	W	1300~1600	2038	1300~1600	2100~2750	2739
	Rated current	A	6.3~7.8	11.0	6.3~7.8	11.0~13.2	13.2
Max. input			W	3200	3200		
Max. current			A	20	20		
Compressor	Type		Rotary inverter		Rotary inverter		
	Input	W	1690		1690		
	Rated current (RLA)	A	11.6		11.6		
	Locked rotor Amp (LRA)	A	60		60		
	Thermal protector		Internal		Internal		
	Capacitor	μF	85μF/250V		85μF/250V		
	Refrigerant oil	ml	750		750		
Outdoor fan motor	Input	W	148		148		
	Capacitor	μF	3		3		
	Speed	r/min	775		775		
Outdoor coil	Number of rows		2		2		
	Fin spacing	mm	1.7		1.7		
	Fin type		Hydrophilic aluminium		Hydrophilic aluminium		
	Tube outside dia.	mm	Ø9.53		Ø9.53		
	Tube Material		Innergroove tube		Innergroove tube		
	Coil length x height x width	mm	776x660x22		776x660x22		
	Number of circuits		2		2		
Outdoor air flow			m³/h	2500	2500		
Outdoor noise level			dB(A)	60	60		
Outdoor unit	Dimension (W*H*D)	mm	845x695x335		845x695x335		
	Packing (W*H*D)	mm	965x772x405		965x772x405		
	Net/Gross weight	kg	71/74		72/76		
Refrigerant Type R-410A			g	2100	2250		
Refrigerant piping	Liquid side/Gas side	mm	Ø6.35/Ø9.53		3 x Ø6.35/Ø9.53		
	Transfer Connector (9.53~12.7)	mm	2		2		
	Max. refrigerant pipe length	m	15 (each indoor unit)		15 (each indoor unit)		
	Max. difference in level	m	10 (each indoor unit)		10 (each indoor unit)		

**Remark:** The above design and specifications are subject to change without prior notice for product improvement.





# TECHNICAL SPECIFICATIONS

TECHNICAL SPECIFICATION: CASSETTE DC INVERTER "YOH" R-410A, 50Hz

Model		Set	YKHC18DSBAAR	YKHC24DSBAAR	YKHC36DSBACR	YKHC48DSBACR
		Indoor	YKKC18DS-BAR	YKKC24DS-BAR	YKKC36DS-BCR	YKKC48DS-BCR
		Outdoor	YKJC18DS-BAR	YKJC24DS-BAR	YKJC36DS-BCR	YKJC48DS-BCR
Power supply		V-Ph-Hz	220~240-1-50	220~240-1-50	380V~3~ 50Hz	380V~3~ 50Hz
Cooling	Capacity	Btu/h	18000	24000	36000	48000
	Input	W	1620	2180	3280	4330
	Rated current	A	6.7	9.1	8.72	11.4
Heating	Capacity	Btu/h	21000	28000	40000	53000
	Input	W	1700	2230	3180	4200
	Rated current	A	7.2	9.35	8.41	10.96
Max. input consumption		W	2400	2730	3780	4890
Max. current		A	9.8	11.1	10.2	12.95
Starting current		A	1.08	1.15	1.1	1.16
Compressor	Type		DC Inverter Rotary		DC Inverter Scroll	
	Input	W	1650	1650	3665	3665
	Rated current (RLA)	A	8	8	7.8	7.8
	Locked rotor Amp (LRA)	A	28	28	28	28
	Protector		Thermal			
	Capacitor	µF	50	50	50	50
	Refrigerant oil	ml	480	480	500	500
Indoor fan motor	Type		AC Motor			
	Input	W	75	95	3.5	3.5
	Capacitor	µF	4	4	-	-
	Speed (Hi/Me/Lo)	r/min	550/490/440	630/550/470	630/580/530	630/580/530
Indoor coil	Number of rows		2	2	1	1
	Fin spacing	mm	1.3	1.3	1.3	1.3
	Fin type		Hydrophilic aluminium			
	Tube outside dia.	mm	Ø7			
	Tube Material		Innergroove tube			
Coil length x height x width		mm	2000x170x27	1950x126x26.74	1950x168x13.37	1950x168x13.37
Indoor air flow (Hi/Me/Lo)		m³/h	800/700/600	920/770/675	1600/1420/1200	1600/1420/1200
Indoor noise level (Hi/Me/Lo)		dB(A)	49/-/-	52/-/-	48/46/44	48/46/44
Indoor unit	Dimension (W*H*D)	mm	840x840x310	840x840x310	840x310x840	840x310x840
	Packing (W*H*D)	mm	1010x930x340	1010x930x340	1010x930x340	1010x410x930
	Net/Gross weight	kg	32/35	32/35	32/35	40/47
Outdoor fan motor	Input	W	129	150	10	3.5*2
	Capacitor	µF	3	3	-	-
	Speed	r/min	770	800	740	800
Outdoor coil	Number of rows		2	2	1	1
	Fin spacing	mm	1.7	1.5	25.4/22	25.4/22
	Fin type		Hydrophilic aluminium			
	Tube outside dia.	mm	Ø9.52			
	Tube Material		Innergroove tube			
Coil length x height x width		mm	630X660X44	620X813X44	955x915x22	715x610x22
Outdoor air flow		m³/h	2400	3000	5000	6000
Outdoor noise level		dB(A)	56	55	57	58
Outdoor unit	Dimension (W*H*D)	mm	840x677x310	894x860x302	990x960x340	940x1245x340
	Packing (W*H*D)	mm	965x770x395	1043x915x395	1120x1015x435	1058x1300x435
	Net/Gross weight	kg	62.5/66.5	72/76.5	106/111	117/126
Refrigerant R-410A		g	1650	2200	2600	3550
Throttle type			EXV&Capillary	EXV&Capillary	EXV&Capillary	EXV&Capillary
Refrigerant piping	Liquid side/ Gas side	mm	6.35/12.7	9.53/16	9.53/16	9.53/16

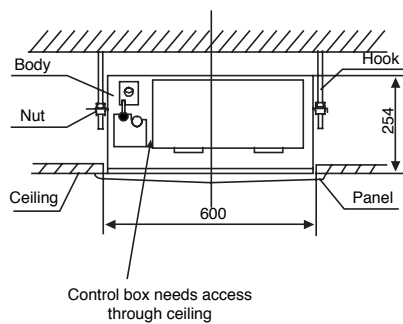
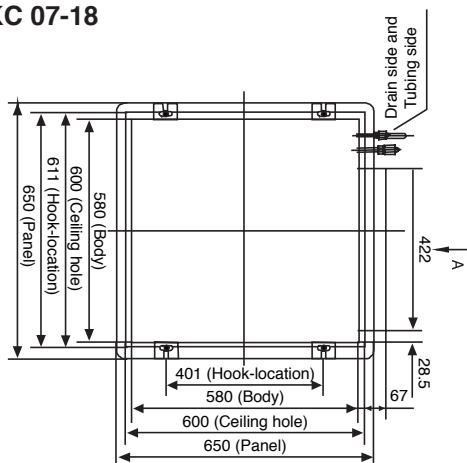
**Remark:** The above design and specifications are subject to change without prior notice for product improvement.



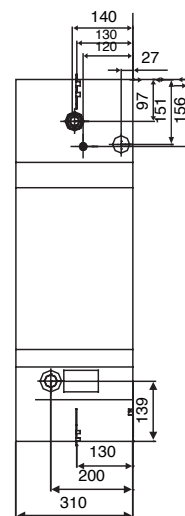
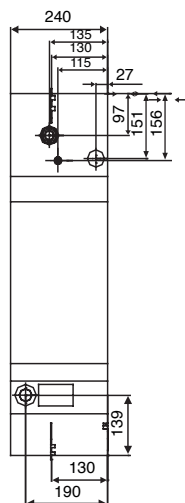
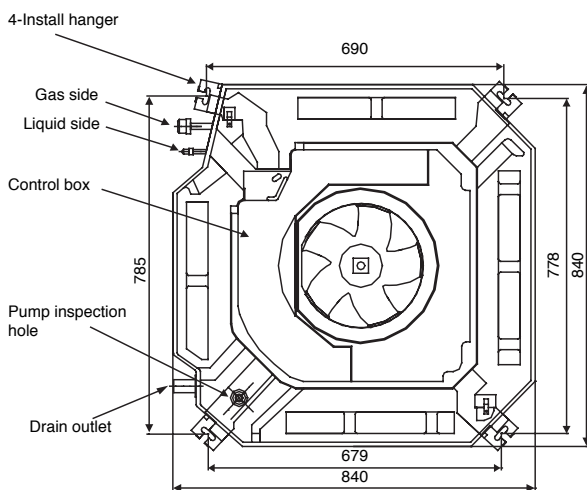
# DIMENSIONS

## INDOOR UNIT

### YKCC 07-18



### YKCC 24-48



YKCC 24-48

YKCC 24

YKCC 30-48

### DC Inverter R-410A

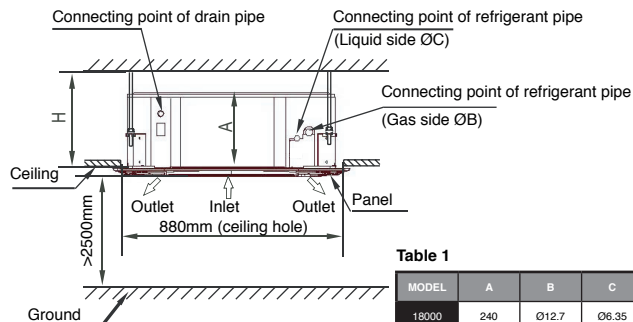
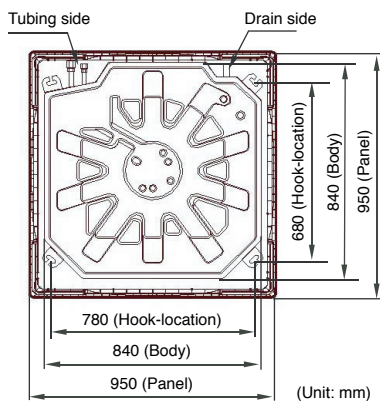


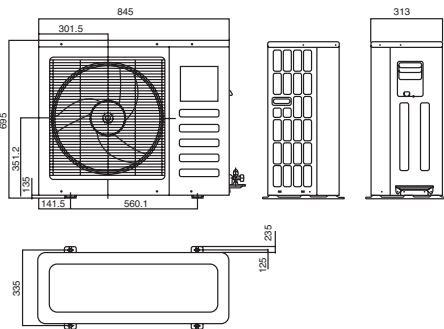
Table 1

MODEL	A	B	C	H
18000	240	Ø12.7	Ø6.35	>260
24000	240	Ø16	Ø9.53	>260
36000	310	Ø16	Ø9.53	>330
48000	310	Ø16	Ø9.53	>330

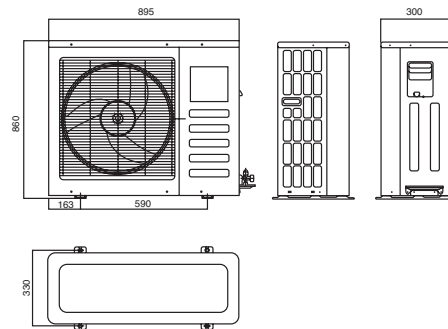


## OUTDOOR UNIT

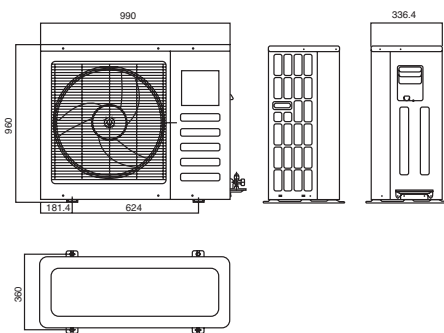
### ■ YKDC-YKJC 12-18



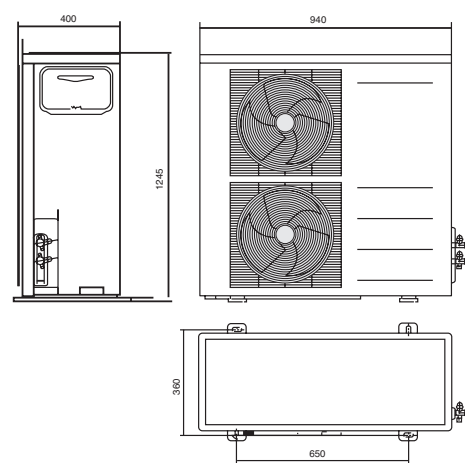
### ■ YKDC-YKJC 24



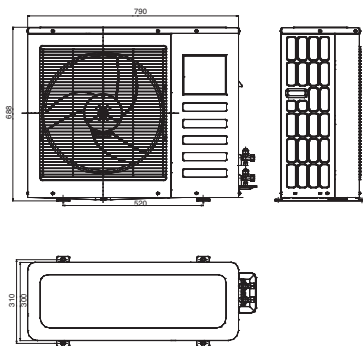
### ■ YKDC-YKJC 30-36



### ■ YKDC-YKJC 48



### ■ RRJC 18-27



### ■ DC Inverter R-410A

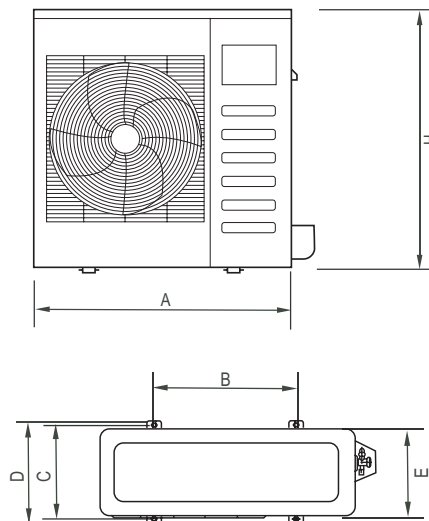


Table 2

MODEL	A	B	C	D	E	H	REMARK
18	840	560	335	360	310	677	R-410A
24	894	590	333	355	302	860	
36	990	624	366	396	340	960	
48	940	600	376	400	340	1245	





# INSTALLATIONS

## CAUTIONS

Location in the following places may cause malfunction of the machine. (If unavoidable, please consult your local dealer)

- a. There is petrolatum existing.
- b. There is salty air surrounding (near the coast).
- c. There is caustic gas (the sulfide, for example) existing in the air (near a hot spring).
- d. The Volt varies violently (in the factories).
- e. In buses or cabinets.
- f. In kitchen where oil or gas are present.
- g. There is strong electromagnetic wave existing.
- h. There are inflammable materials or gas.
- i. There is acid or alkaline liquid evaporating.
- j. Other special conditions.

## NOTICES BEFORE INSTALLATION

1. Select the correct carry-in path.
2. Move this unit as originally packaged as possible.
3. The air conditioner must be electrically insulated according to the relevant standards to electrical appliances.

### 1. The indoor unit

- There is enough room for installation and maintenance.
- The ceiling is horizontal, and its structure can endure the weight of the indoor unit.
- The air outlet and the air inlet are not impeded, and the influence of external air is the least.
- The air flow can reach throughout the room.
- The connecting pipe and drainpipe could be extracted out easily.
- There is no direct radiation from heaters.

### 2. The outdoor unit

- There is enough room for installation and maintenance.
- The air outlet and the air inlet are not impeded, and cannot be reached by strong wind.
- It must be a dry and well ventilating place.
- The base is flat, level and can support the weight of the outdoor unit without vibration.
- Your neighborhood will not feel uncomfortable with the noise or expelled air.
- There is no leakage of combustible air.
- It is easy to install the connecting pipe or cables.
- Determine the air outlet direction where the discharged air is not blocked.
- A place is free from a leakage of combustible gases.

In the case that the installation place is exposed to a strong wind such as a seaside or high position, secure the normal fan operation by putting the unit lengthwise along the wall or using a duct or shield plates.

- If possible, do not install the unit which is exposed to direct sunlight.
- If necessary, install a blind that does not interfere with the air flow.
- During the heating mode, the water drained off the outdoor unit. The condensate should be well drained away by the drain hole to an appropriate place so as not to interfere other people or public.
- Select the position that will not be subject to snow drifts, accumulation of leaves or other seasonal debris. It is important that the air flow for the outdoor unit is not impeded as this will result in reduction in heating or cooling performance.

# INDOOR UNIT INSTALLATION

## 1. INSTALL THE MAIN BODY

### A. The existing ceiling (to be horizontal)

- a. Cut a square hole of 880 x 880 mm. in the ceiling according to the shape of the installation paper board.  
(Refer to chart 3, 4)
- The center of the hole should be at the same position of that of the air conditioner body.
- Determine the lengths and outlets of the connecting pipe, drainpipe, and cables.
- Strengthen the ceiling as necessary to avoid vibration.





- b. Select the position of installation hooks according to the hook holes on the installation board.
  - Drill four holes of 12 mm., 45 ~ 50 mm. deep at the selected positions on the ceiling. Then embed the expandable hooks (fittings).
  - Face the concave side of the installation hooks toward the expandable hooks. Determine the length of the installation hooks from the height of ceiling, then cut off the unnecessary part.
  - If the ceiling is extremely high, determine the length of the installation hook according to facts.
  - For size 12-18 provide access for control box.

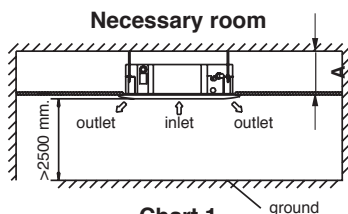


Chart 1

Note: 12000-24000 Btu/h Series A  $\geq 260$  mm.  
30000-48000 Btu/h Series A  $\geq 330$  mm.

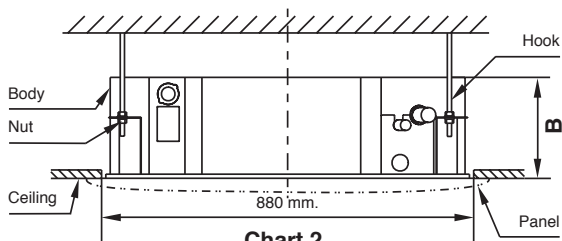


Chart 2

Note: 12000-24000 Btu/h Series B  $\geq 240$  mm.  
30000-48000 Btu/h Series B  $\geq 310$  mm.

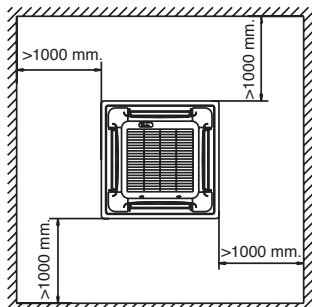


Chart 3

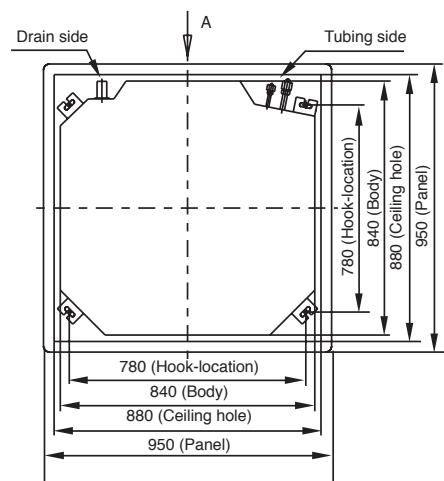


Chart 4

(Unit : mm.)

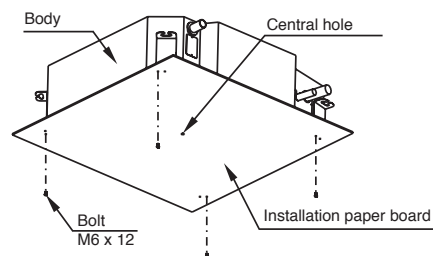


Chart 5

Note: The dimension of 24000 Btu/h and 30000 Btu/h (3 PHASE) are the same.  
The dimension of 30000 Btu/h and 36000 Btu/h (1 PHASE) are the same.

The length could be calculated from Chart 5.

Length=H-181+L (in general, L=100 mm. and is half of the whole length of the installation hook)

- c. Adjust the nuts on the four installation hooks evenly to ensure the balance of the body.
  - If the drainpipe is awry, leakage will be caused by the malfunction of the water-level switch.
  - Adjust the position to ensure the gaps between the body and the four sides of ceiling are even. The body's lower part should sink into the ceiling for 10 ~ 12 mm. (Refer to chart 5).
  - Locate the air conditioner firmly by adjusting the nuts.

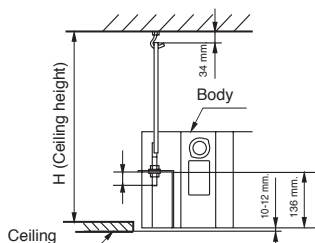


Chart 6

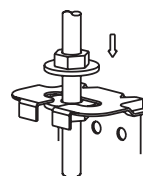


Chart 7



## B. New built houses and ceilings

- a. In the case of new built house, the hook can be embedded in advance (refer to the A.b mentioned above). But it should be strong enough to bear the indoor unit and will not become loose because of concrete shrinking.
- b. After installing the body, fasten the installation paper board onto the air conditioner with bolts (M6 x 12) to determine in advance the sizes and positions of the hole opening on ceiling.
- Refer to the A.a mentioned above for others.
- c. Refer to the A.c mentioned above for installation.
- d. Remove the installation paper board.

### CAUTIONS

After installing the body, the four bolts (M6 x 12) must be fastened to the air conditioner to ensure the body is grounded well.

## 2. INSTALL THE PANEL

### CAUTIONS

- Never put the panel face down on floor or against the wall.
- Never crash or strike it.

#### (1) Remove the inlet grid.

- a. Slide two grid switches toward the middle at the same time, and then pull them up. (Refer to chart 8)
- b. Draw the grid up to an angle of about 45° and remove it. (Refer to chart 9)

#### (2) Remove the installation covers at the four corners.

Undo the bolts, loose the rope of the installation covers, and remove them. (Refer to chart 10)

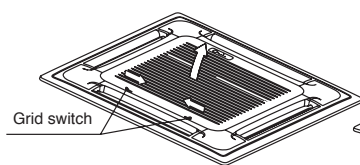


Chart 8

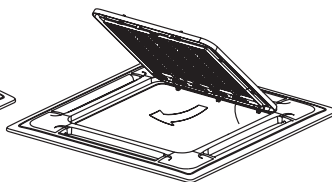


Chart 9

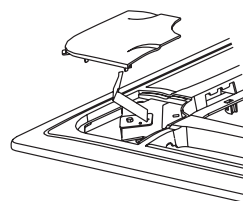


Chart 10

#### (3) Install the panel

- a. Align the swing motor on the panel to the tubing joints of the body properly. (Refer to chart 11)
- b. Fix hooks of the panel at swing motor and its opposite sides to the hooks of corresponding water receiver. (Refer to chart 11①) Then hang the other two panel hooks onto corresponding hangers of the body. (Refer to chart 11②)

### CAUTIONS

Do not coil the wiring of the swing motor into the seal sponge.

- c. Adjust the four panel hook screws to keep the panel horizontal, and screw them up to the ceiling evenly. (Refer to chart 11③)
  - d. Regulate the panel in the direction of the arrow in chart 11④ slightly to fit the panel's center to the center of the ceiling's opening. Guarantee that hooks of four corners are fixed well.
  - e. Keep fastening the screws under the panel hooks, until the thickness of the sponge between the body and the panel's outlet has been reduced to about 4 ~ 6 mm. The edge of the panel should contact with the ceiling well. (Refer to chart 12)
  - Malfunction described in chart 13 can be caused by inappropriate tightness the screw.
  - If the gap between the panel and ceiling still exists after fastening the screws, the height of the indoor unit should be modified again. (Refer to chart 14-left)
  - You can modify the height of the indoor unit through the openings on the panel's four corners, if the lift of the indoor unit and the drainpipe is not influenced (refer to chart 14-right).
- (4) Hang the air-in grid to the panel, then connect the lead terminator of the swing motor and that of the control box with corresponding terminators on the body respectively.
- (5) Relocate the air-in grid in the procedure of reversed order.
- (6) Relocate the installation cover.
- a. Fasten the rope of installation cover on the bolt of the installation cover. (Refer to chart 15-left)
  - b. Press the installation cover into the panel slightly. (Refer to chart 15-right)



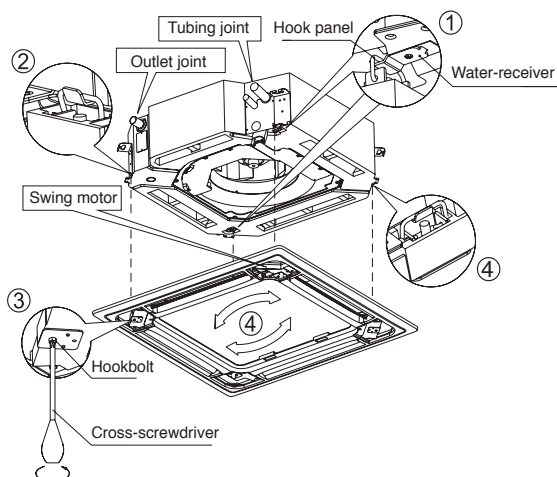


Chart 11

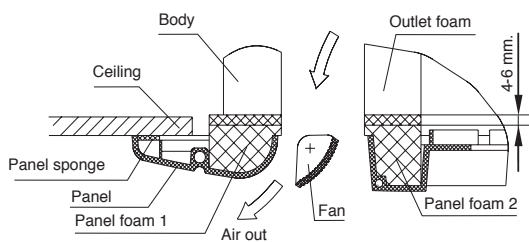


Chart 12

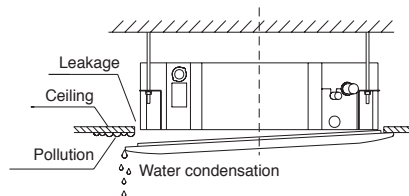


Chart 13

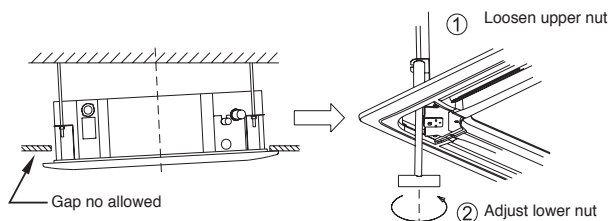


Chart 14

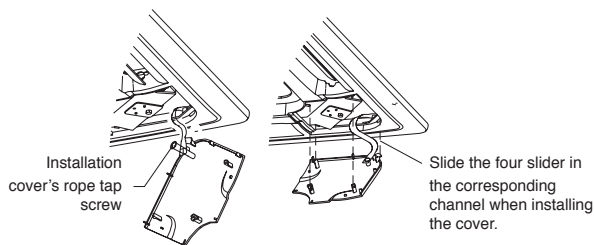


Chart 15

## OUTDOOR UNIT INSTALLATION

### CAUTIONS

- Keep this unit away from direct radiation of the sun or other heaters.
- If unavoidable, please cover it with a shelter.
- In places near coast or with a high attitude where the wind is violent, please install the outdoor unit against the wall to ensure normal performance. Use a baffle when necessary.
- In the case of extremely strong wind, please prevent the air from flowing backwards into the outdoor unit. (Refer to chart 16)
- Locate the outdoor unit as close to the indoor unit as possible.
- The minimum distance between the outdoor unit and obstacles described in the installation chart does not mean that the same is applicable to the situation of an airtight. Leave open two of three directions A, B, C.

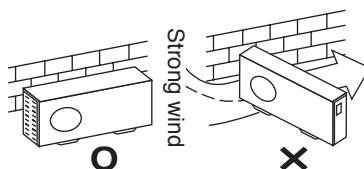


Chart 16



## NECESSARY ROOM FOR INSTALLATION AND MAINTENANCE

(Refer to chart 17, chart 18)

Remove the obstacles nearby to prevent the performance from being impeded by too little of air circulation.

The minimum distance between the outdoor unit and obstacles described in the installation chart does not mean that the same is applicable to the situation of an airtight room. Leave open two of the three directions (A, B, C).

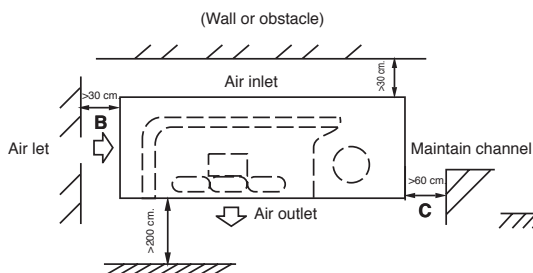


Chart 17

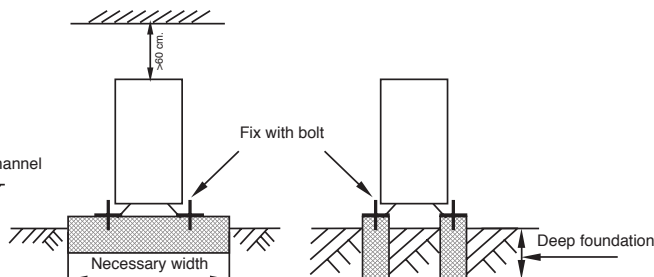


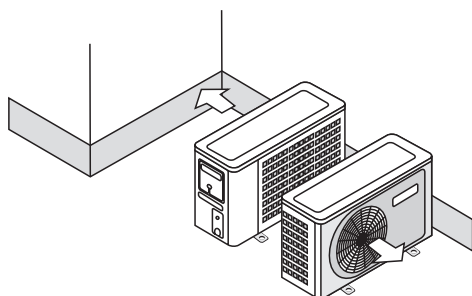
Chart 18

## MOVING AND INSTALLING

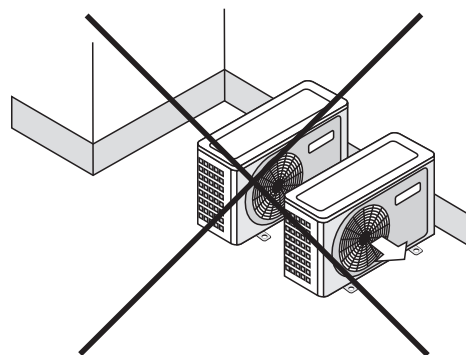
- Since the gravity center of this unit is not at its physical center, so please be careful when lifting it with a sling.
- Never hold the air-in of the outdoor unit to prevent it from deforming.  
Do not touch the fan with hands or other objects.
- Do not lean it more than 45°, and do not lay it sidelong.
- Please fasten the feet of this unit with bolts firmly to prevent it from collapsing in case of earthquake or strong wind.
- Make concrete foundation of the size of 590 x 328. (Refer to chart 18)

## COLD AREA RECOMMENDATION

- Outdoor heat pump unit: install the unit at least 10 cm. above ground level to facilitate drainage of defrost water and prevent accumulation of ice. In effect, defrost water can cause accumulation of ice under the unit during subfreezing outdoor temperatures.
- In areas with heavy snowfall, it is best to install the unit on wall supports.
- In some regions, it is necessary to heat the bottom of the condensate drainage pan and the condensate drainage piping to avoid ice formation, and resulting ice build-up in the fan compartment (heater strip must be at least 25 W/m).



OK

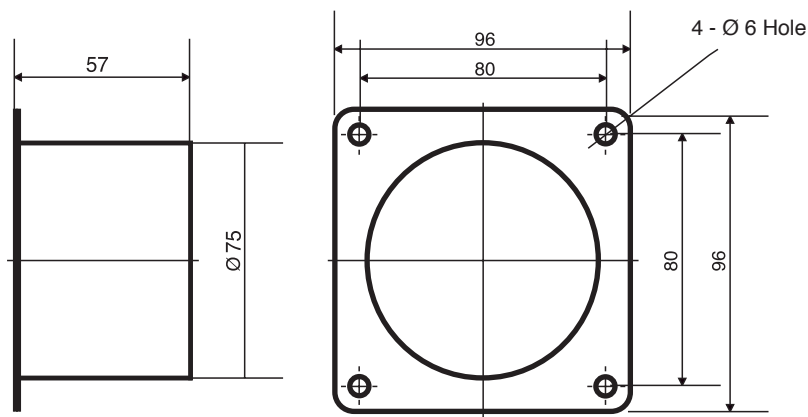






## INSTALLATION OF FLANGE AND DUCT

Fresh air can be introduced into the unit either by installing a duct directly to the unit or adding an external fan.



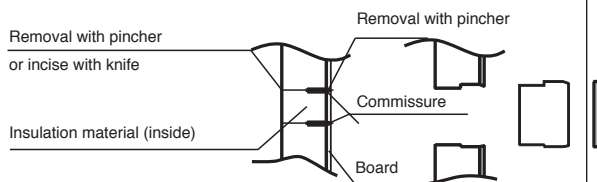
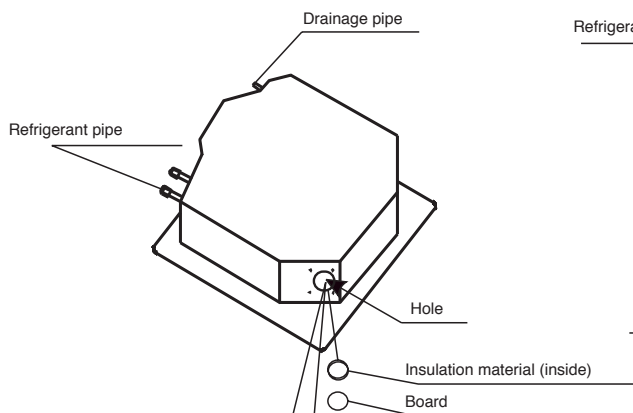
### NOTE

1. The device can be installed in ceiling cassette type indoor units.
2. The duct diameter is 75 mm.

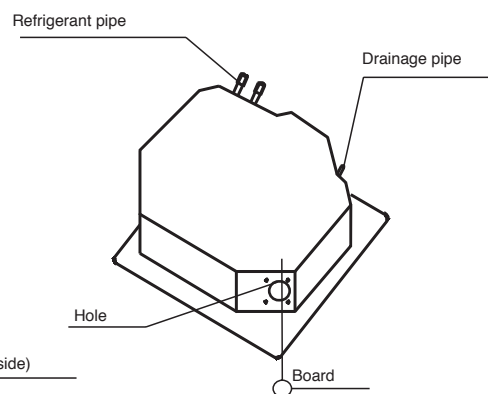
For different type of indoor unit, the installation methods are different and the position of holes are differed.

1. Removal the hole on the board.

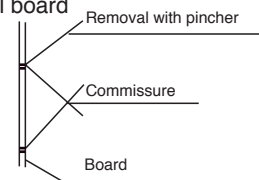
#### Installation Type 1 The hole is oppose to drainage pipe



#### Installation Type 2 The hole is oppose to refrigerant pipe



#### No insulation material inside, only removal board





Stick insulation material 4 at indoor hole

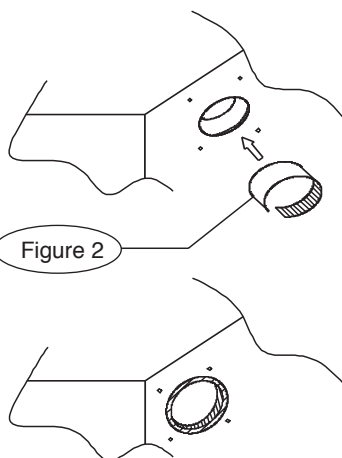
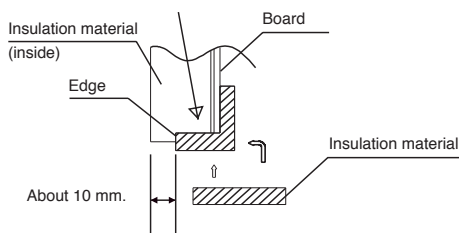


Figure 2

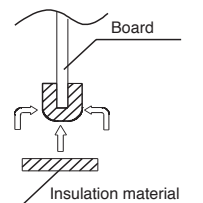
#### Installation Type 1

Put the insulation material 4 on the interface of the hole as shown in Figure 2, then stick on the inside and surface of the board. The interface of the hole cannot have gap.



#### Installation Type 2

Stick insulation material at the opening part of the board.



Ensure the interface of insulation material 4 closely contacts with the inside insulation material and the board.

Use screw 2 (M4 x 12, 4 Pieces) to install flange at the hole, and then stick insulation material 3.

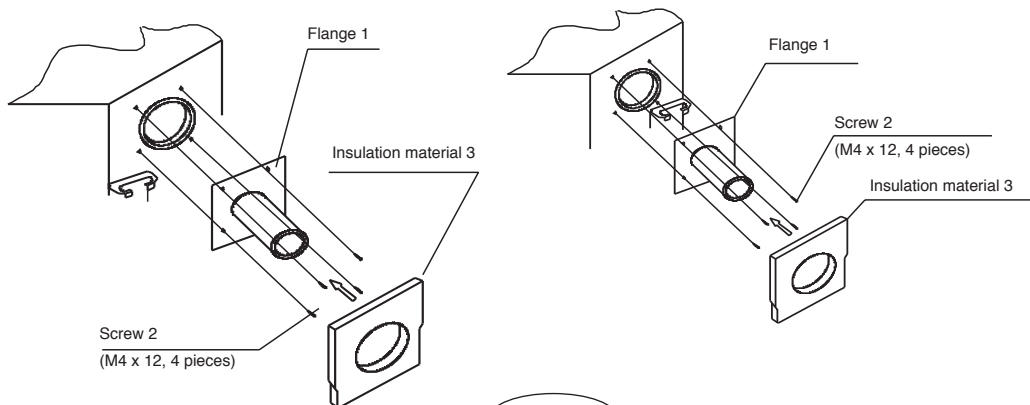
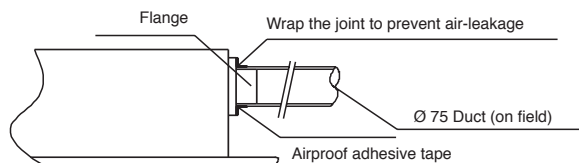


Figure 3

Install duct (the rated diameter:  $\varnothing 75$ )

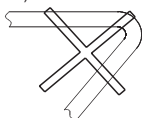
1. Connect the duct to the flange. (The flange is assembled with the interface of duct.)
2. After connection, use the ethylene tape (provided on field) to wrap the joint to prevent air-leakage.



Note:

1. All ducts must be completely heat-insulated.
2. The following phenomena are not allowed when installing duct:

A) Bend too much



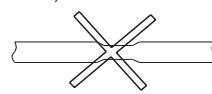
Wrong

B) Too many bender



Wrong

C) Diameter reduce



Wrong



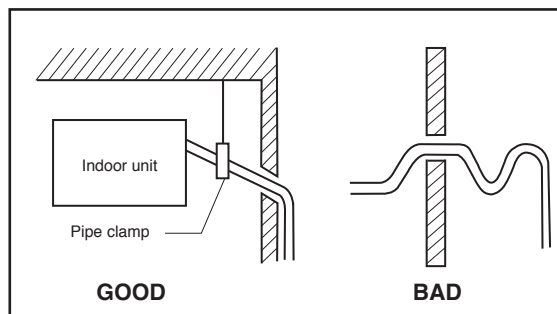
# CONDENSATE DRAINAGE

## INSTALLATION

The units are fitted with an internal condensate drainage pump. The hose connection point on the unit is located 260 mm. above the level of the false ceiling. Drainage piping connected to the unit must be installed with a downwards slope without any rises.

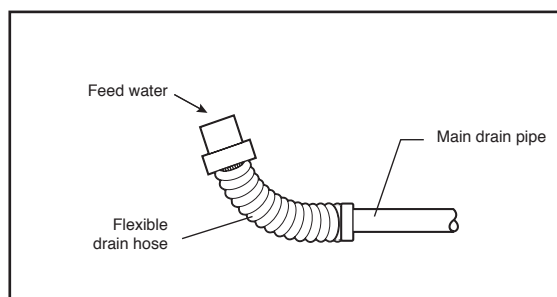
### Drain piping work

- Drain pipe must be in downward gradient for smooth drainage.
- Avoid installing the drain pipe in up and down slope to prevent reversed water flow.
- During the drain pipe connection, be careful not to exert extra force on the drain connector at indoor unit.
- The outside diameter of the drain connection at the flexible drain hose is 20 mm.
- Be sure to execute heat insulation (polyethylene foam with thickness more than 8.0 mm.) on the drain piping to avoid the condensed water dripping inside the room.



### Drain test

- Connect the main drain pipe to the flexible drain hose.
- Feed water from flexible drain hose to check the piping for leakage.
- When the test is completed, connect the flexible drain hose to the drain connector on the indoor unit.

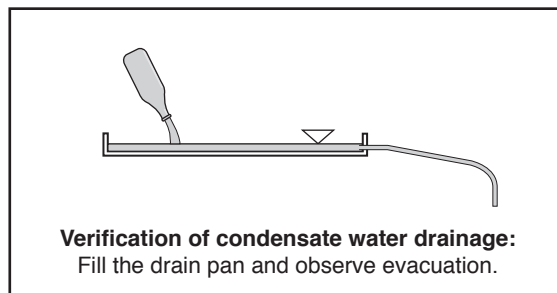
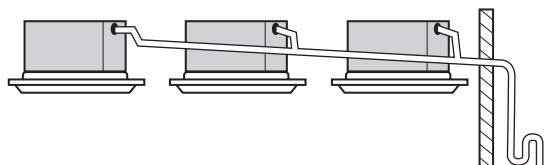


### NOTE

THIS INDOOR UNIT USES A DRAIN PUMP FOR CONDENSED WATER DRAINAGE. INSTALL THE UNIT HORIZONTALLY TO PREVENT WATER LEAKAGE OR CONDENSATION AROUND THE AIR OUTLET.

## CAUTION (MULTIPLE CASSETTE UNIT INSTALLATIONS)

When a common drainage line is required, the connection point of each unit to the line must be higher than the line itself. The diameter of a common drainage line must be sufficient to accommodate the condensate flow from the units connected to it.



# REFRIGERANT PIPING CONNECTIONS

## ■ Fixing and Piping

- Piping must be performed by qualified personnel according to good refrigeration system practices.
- Piping materials and insulation materials must be of refrigerant quality.
- Select the pipe diameters according to the size of unit and cut the pipe to design length by using pipe cutter.
- Install the flare nuts and flare the end of the pipes.
- Check that no foreign bodies are inside the piping.
- Align the central of the connection pipes and tighten the flare nut.
- Fix piping with pipe clamps and check that any pipe vibrations cannot be transmitted to the building structure.

## NOTES

- Connect the pipe correctly.
- Do not apply the excessive torque.
- Use an appropriate bending tool to form curves and avoid over-tightening the refrigerant tubes.
- To prevent heat loss, the two lines must be insulated separately.

## ■ Maximum Piping Length

See Technical Specification

The suction line must have a 2% gradient up to the compressor on horizontal sections.

Where piping lengths are unusually long and include a large number of oil traps, it may be necessary to adjust to compressor charge.

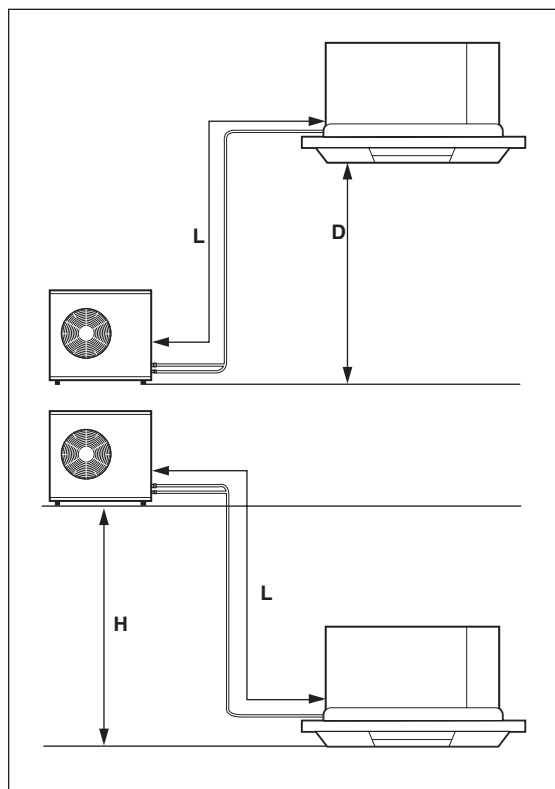
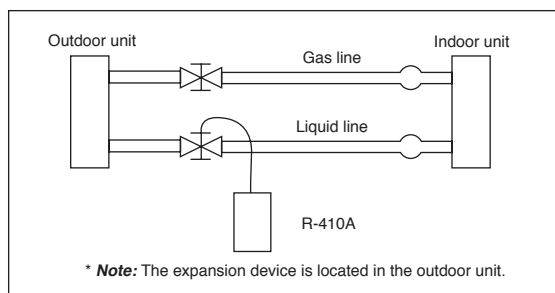
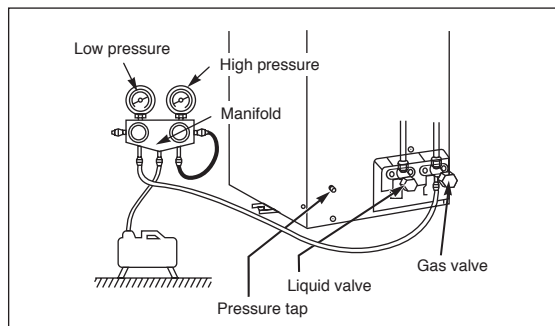
## ■ Refrigerant charge to be added per extra meter of piping length when more than 5 meters.

Unit size	Models					
	12	18	24	30	36	48
(g/m)	30	30	65	90	90	90

Prefabricated refrigerant piping is available as an accessory. If this is not used, piping and insulating materials employed must be compatible with this type of installation.

The pre-charged outdoor unit does not require charging if piping length is 5 m or less. However, the interconnecting piping and the indoor unit must be pumped down before releasing R-410A refrigerant into them from the outdoor unit.

1. Remove the cap from the service valve.
2. Connect the line to a vacuum pump and pump down to 5 Pa.
3. When pump down is finished, wait 15 minutes to detect potential circuit leakage. Open service valves on the outdoor unit.



# WIRING DIAGRAM

## ■ Wiring

Prepare the power source for exclusive with the air conditioner.

The supply voltage must comply with the rated voltage of the air conditioner. The plug socket shall be accessible after installation.

**Remark:** All the wiring must be based on the wiring nameplate which is shown on the model.

## CAUTIONS

- Perform the wiring with sufficient capacity. Installation places legally require a short circuit isolator to be attached to prevent electrical shock.
- Do not extend the power cable code by cutting.
- Power voltage should be in the range of 90%-110% of rated voltage.
- The plug of the air conditioner takes a grounding leg, and clients should use a grounding socket so that the air conditioner can be grounded efficiently.
- If the power cord is damaged, replacement should be conducted by qualified technician or a serviceman.

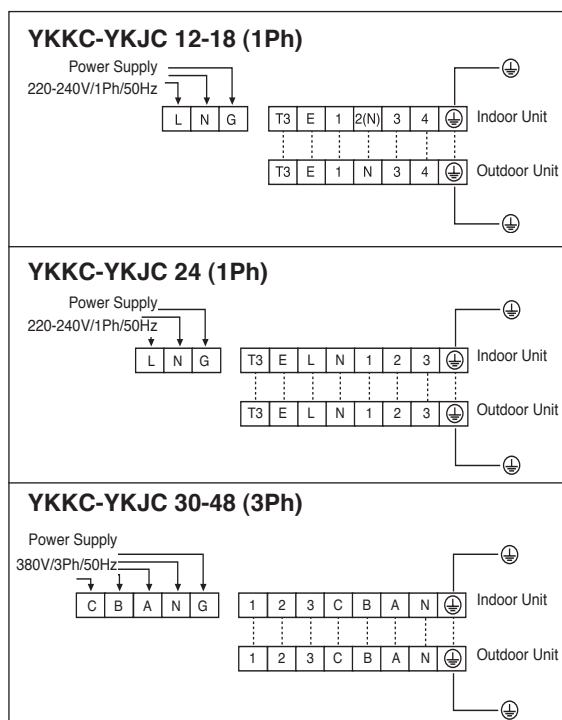
**NOTE** Remark per EMC Directive 89/336/EEC

To prevent flicker impressions during the start of the compressor (technical process), the following installation conditions do apply.

1. The power connection for the air conditioner has to be done at the main power distribution.  
The distribution has to be of an low impedance, normally the required impedance reaches at a 32A fusing point.
2. No other equipment has to be connected with this power line.
3. For detailed installation acceptance, please refer to your contract with the power supplier if restrictions do apply for products like washing machines, air conditioners or electrical ovens.
4. For power details of the air conditioner, refer to the rating plate of the product.
5. For any question, contact your local dealer.

## CAUTIONS

- Never modify the unit by removing any of the safety guards or by bypassing any of the safety interlock switches.
- Connect the connecting cable correctly and connect the connecting cable to terminal as identified with their respective marks.
- Do not scratch the conductive core & inner insulator of power supply cables and do not deform or smash on the surface of cables.



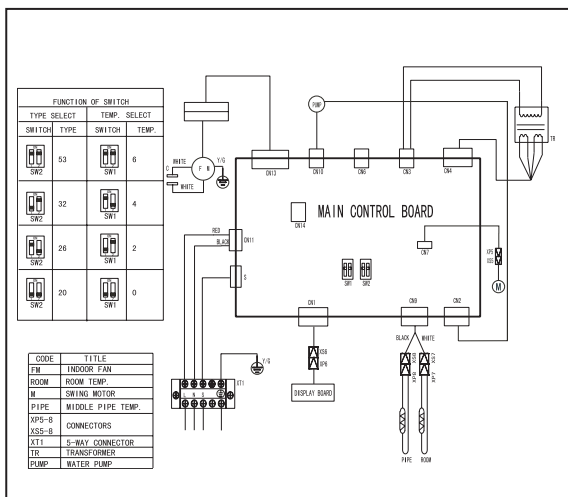
## ■ Electrical work

Model	Power source	Circuit breaker/fuse	Wiring size
12000-18000 Btu/h	220~240V - 50Hz	30/25A	3 x 1.5 mm <sup>2</sup>
24000 Btu/h	220~240V - 50Hz	40/25A	3 x 2.5 mm <sup>2</sup>
24000-30000 Btu/h	380V 3N - 50Hz	20/15A	5 x 1.5 mm <sup>2</sup>
36000-48000 Btu/h	380V 3N - 50Hz	25/15A	5 x 2.5 mm <sup>2</sup>

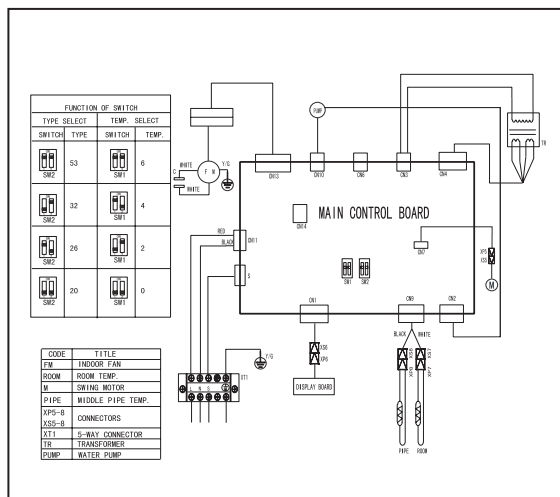
## NOTE

The supply voltage must be consistent with the rate voltage of the air conditioner.

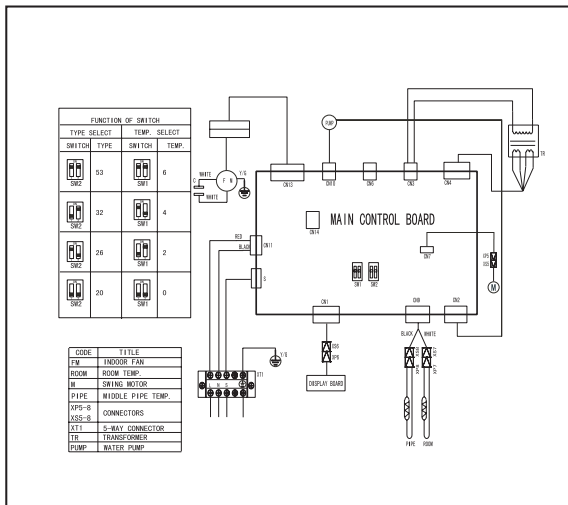
## YKKC 07



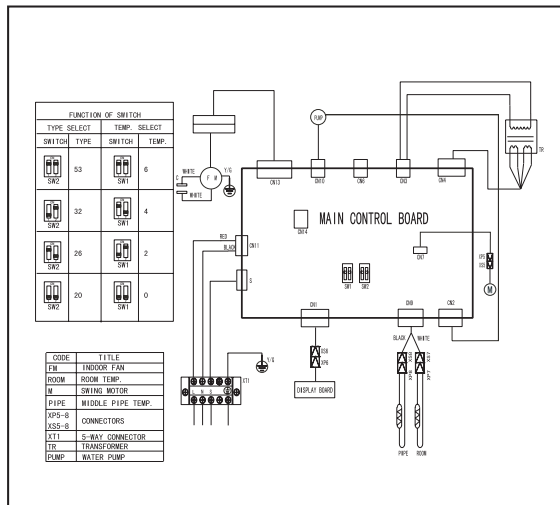
## YKKC 09



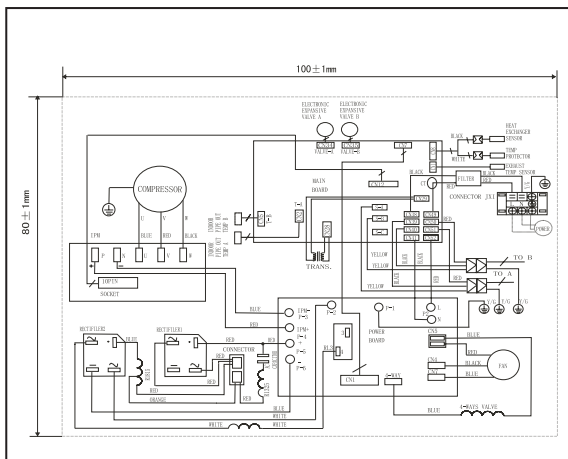
## YKKC 12



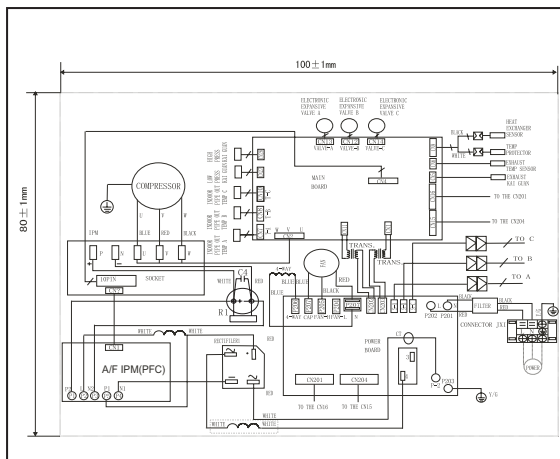
## YKKC 18



## RRJC 18

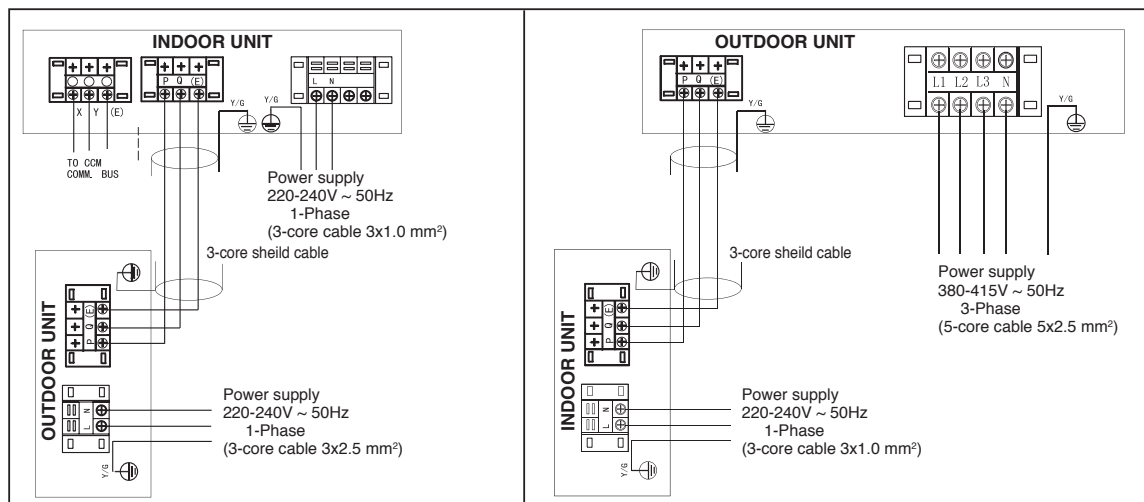


## RRJC 27





## DC Inverter R-410A



For 18,000-24,000 Btu/h

For 36,000-60,000 Btu/h

## OPTIMAL OPERATION

To achieve optimal performance, please note the following:

- Adjust the air flow direction correctly so that it is not directed on people.
- Adjust the temperature to achieve the highest comfort level. Do not adjust the unit to excessive temperature level.
- Close doors and windows on COOL or HEAT modes, or performance may be reduced.
- Do not put any object near air inlet or air outlet, as the efficiency of the air conditioner may be reduced and the air conditioner may stop running.
- Clean the air filter periodically, otherwise cooling or heating performance may be reduced.
- Do not operate unit with horizontal louver in closed position.

## ADJUSTING AIR FLOW DIRECTION

While the unit is in operation, you can adjust the air flow louver to change the flow direction and naturalize the room temperature evenly. Thus you can enjoy it more comfortably.

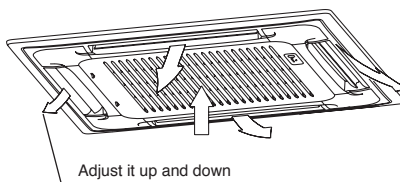
1. Set the desired air flow direction.

Push the **SWING** button to adjust the louver to the desired position and push this button again to maintain the louver at this position.

2. Adjust the air flow direction automatically.

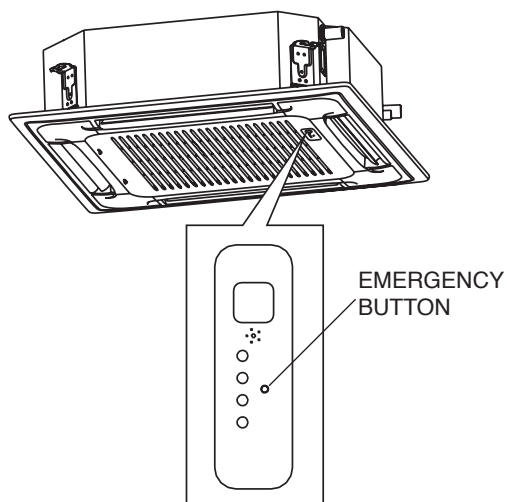
Push the **SWING** button, the louver will swing automatically.

While this function is set, the swing fan of indoor unit runs; otherwise, the swing fan doesn't run. The swing scale of every side is 30°. When the air conditioner is not in operation (including when "TIMER ON" is set), The **SWING** button will be disabled.





## EMERGENCY OPERATIONS



This function is used to operate the unit temporarily in case you misplace the remote controller or its batteries are exhausted.

Two modes including AUTO and mandatory COOL can be selected through the EMERGENCY BUTTON on the air inlet grill control box of the indoor unit. Once you push this button, the air conditioner will run in such order: AUTO, mandatory COOL, OFF, and back to AUTO.

### 1. AUTO

The RUN lamp is lit, and the air conditioner will run under AUTO mode. The remote controller operation is enabled to operate according to the received signal.

### 2. Mandatory COOL

The RUN lamp flashes, the air conditioner will turn to AUTO after it is enforced to cool with a wind speed of HIGH for 30 minutes. The remote controller operation is disabled.

### 3. OFF

The RUN lamp goes off. The air conditioner is OFF while the remote controller operation is enabled.

## MAINTENANCE

### WARNING

Before you clean the air conditioner, be sure to disconnect the power supply plug.

#### Cleaning the indoor unit and remote controller

- Use a dry cloth to wipe the indoor unit and remote controller.
- A cloth dampened with cold water may be used on the indoor unit if it is very dirty.
- Never use a damp cloth on the remote controller.
- Do not use a chemically-treated duster for wiping or leave such material on the unit for long, because it may damage or fade the surface of the unit.
- Do not use benzine, thinner, polishing powder, or similar solvents for cleaning. These may cause the plastic surface to crack or deform.

If you do not plan to use the unit for at least 1 month.

- (1) Operate the fan for about half a day to dry the inside of the unit.
- (2) Stop the air conditioner and disconnect power.
- (3) Remove the batteries from the remote controller.





### Checks before operation

- Check that the wiring is not broken off or disconnected.
- Check that the air filter is installed. (Some air conditioners haven't air filters.)
- Check that the outdoor unit air outlet or inlet is not blocked.

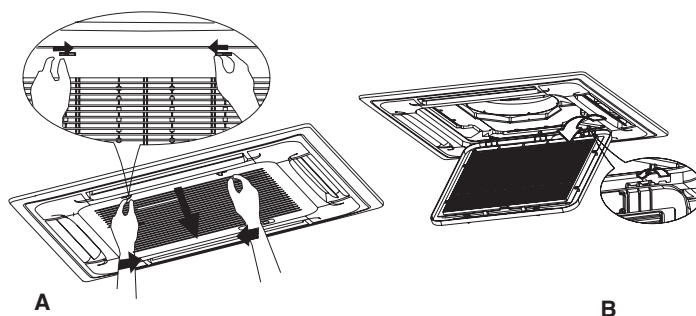
### Cleaning the air filter

- The air filter can prevent the dust or other particulate from going inside. In case of blockage of the filter, the working efficiency of the air conditioner may greatly decrease. Therefore, the filter must be cleaned once two weeks during long time usage.
- If the air conditioner is positioned in a dust place, the cleaning frequency of the air filter must be increased.
- If the accumulated dust is too heavy to be cleaned, please replace the filter with a new one (replaceable air filter is an optional fitting).

#### 1. Open the air-in grill.

Push the grill switches toward the middle simultaneously as indicated in sketch A. Then pull down the air-in grill.

**Caution:** The control box cables, which are originally connected with the main body electrical terminators must be pulled off before doing as indicated above.



#### 2. Take out the air-in grill (together with the air filter shown in sketch B).

Pull the air-in grill down at 45° and lift it up to take out the grill.

#### 3. Dismantle the air filter.

#### 4. Clean the air filter (Vacuum cleaner or pure water may be used to clean the air filter. If the dust accumulation is too heavy, please use soft brush and mild detergent to clean it and dry out in cool place).



## OPERATION TIPS

The following events may occur during normal operation.

### 1. Protection of the air conditioner.

Compressor protection

- The compressor cannot restart for 3 minutes after it stops.  
Anti-cold air (Cooling and heating models only)
- The unit is designed not to blow cold air on HEAT mode, when the indoor heat exchanger is in one of the following three situations and the set temperature has not been reached.
  - A) When heating has just started.
  - B) Defrosting.
  - C) Low temperature heating.
- The indoor or outdoor fan stop running when defrosting (Cooling and heating models only).  
Defrosting (Cooling and heating models only)
- Frost may be generated on the outdoor unit during heat cycle when outdoor temperature is low and humidity is high resulting in lower heating efficiency of the air conditioner.
- During this condition air conditioner will stop heating operation and start defrosting automatically.
- The time to defrost may vary from 4 to 10 minutes according to the outdoor temperature and the amount of frost buildup on the outdoor unit.

### 2. A white mist coming out from the indoor unit.

- A white mist may generate due to a large temperature difference between air inlet and air outlet on COOL mode in an indoor environment that has a high relative humidity.
- A white mist may generate due to moisture generated from defrosting process when the air conditioner restarts in HEAT mode operation after defrosting.

### 3. Low noise of the air conditioner.

- You may hear a low hissing sound when the compressor is running or has just stopped running.  
This sound is the sound of the refrigerant flowing or coming to a stop.
- You can also hear a low “squeak” sound when the compressor is running or has just stopped running.  
This is caused by heat expansion and cold contraction of the plastic parts in the unit when the temperature is changing.
- A noise may be heard due to louver restoring to its original position when power is first turned on.

### 4. Dust is blown out from the indoor unit.

This is a normal condition when the air conditioner has not been used for a long time or during first use of the unit.

### 5. A peculiar smell comes out from the indoor unit.

This is caused by the indoor unit giving off smells permeated from building material, from furniture, or smoke.

### 6. The air conditioner turns to FAN only mode from COOL or HEAT (for cooling and heating models only) mode.

When indoor temperature reaches the temperature setting on air conditioner, the compressor will stop automatically, and the air conditioner turns to FAN only mode. The compressor will start again when the indoor temperature rises on COOL mode or falls on HEAT mode (for cooling and heating models only) to the set point.

### 7. Dripping water may generate on the surface of the indoor unit when cooling in a high relatively humidity (relative humidity higher than 80%). Adjust the horizontal louver to the maximum air outlet position and select HIGH fan speed.

### 8. Heating mode (For cooling and heating models only)

The air conditioner draws in heat from the outdoor unit and releases it via the indoor unit during heating operation. When the outdoor temperature falls, heat drawn in by the air conditioner decreases accordingly. At the same time, heat loading of the air conditioner increases due to larger difference between indoor and outdoor temperature. If a comfortable temperature cannot be achieved by the air conditioner, we suggest you use a supplementary heating device.

### 9. Auto-restart function

Power failure during operation will stop the unit completely. For the unit without Auto-restart feature, when the power restores, the RUN indicator on the indoor unit starts flashing. To restart the operation, push the ON/OFF button on the remote controller. For the unit with Auto-restart feature, when the power restores, the unit restarts automatically with all the previous settings preserved by the memory function.

### 10. Lightning or a car wireless telephone operating nearby may cause the unit to malfunction.

Disconnect the unit with power and then re-connect the unit with power again. Push the ON/OFF button on the remote controller to restart operation.





## TROUBLESHOOTING GUIDE

Problem	Probable cause	Remedy
A. The air conditioner does not run.	<ol style="list-style-type: none"><li>1. Power failure.</li><li>2. Fuse blown or circuit breaker open.</li><li>3. Voltage is too low.</li><li>4. Faulty contactor or relay.</li><li>5. Electrical connections loose.</li><li>6. Thermostat adjustment too low (in heating mode) or too high (in cooling mode).</li><li>7. Faulty capacitor.</li><li>8. Incorrect wiring, terminal loose.</li><li>9. Pressure switch tripped.</li></ol>	<ol style="list-style-type: none"><li>1. Wait for power resume.</li><li>2. Replace the fuse or reset the breaker.</li><li>3. Find the cause and fix it.</li><li>4. Replace the faulty component.</li><li>5. Retighten the connection.</li><li>6. Check thermostat setting.</li><li>7. Find the cause then replace capacitor.</li><li>8. Check and retighten.</li><li>9. Find the cause before reset.</li></ol>
B. The outdoor fan runs but the compressor will not start.	<ol style="list-style-type: none"><li>1. Motor winding cut or grounded.</li><li>2. Faulty capacitor.</li></ol>	<ol style="list-style-type: none"><li>1. Check the wiring and the compressor winding resistance.</li><li>2. Find the cause then replace capacitor.</li></ol>
C. There is insufficient heating or cooling.	<ol style="list-style-type: none"><li>1. There is a gas leak.</li><li>2. Liquid and gas line insulated together.</li><li>3. The room was probably very hot (cool) when you started the system.</li></ol>	<ol style="list-style-type: none"><li>1. Remove charge, repair, evacuate and recharge.</li><li>2. Insulate them separately.</li><li>3. Wait while unit has enough time to cool the room.</li></ol>
D. The compressor runs continuously.	<ol style="list-style-type: none"><li>1. Thermostat adjustment too low (in heating mode) or too high (in cooling mode).</li><li>2. Faulty fan.</li><li>3. Refrigerant charge too low, leak.</li><li>4. Air or incondensables in refrigerant circuit.</li></ol>	<ol style="list-style-type: none"><li>1. Check thermostat setting.</li><li>2. Check condenser air circulation.</li><li>3. Find leak, repair and recharge.</li><li>4. Remove charge, evacuate and recharge.</li></ol>
E. The compressor starts but shuts down quickly.	<ol style="list-style-type: none"><li>1. Too much or too little refrigerant.</li><li>2. Faulty compressor.</li><li>3. Air or incondensables in refrigerant circuit.</li><li>4. Changeover valve damaged or blocked open (heat pump unit).</li></ol>	<ol style="list-style-type: none"><li>1. Remove charge, evacuate and recharge.</li><li>2. Determine the cause and replace compressor.</li><li>3. Remove charge, evacuate and recharge.</li><li>4. Replace it.</li></ol>
F. Clicking sound is heard from the air conditioner.	In heating or cooling operation any plastic parts may expand or shrink due to a sudden temperature change in this event, a clicking sound may occur.	In heating or cooling operation any plastic parts may expand or shrink due to a sudden temperature change in this event, a clicking sound may occur.



# DECLARATION OF CONFORMITY



## DECLARATION OF CONFORMITY

Type of Equipment      Air Conditioners  
Brand Name              YORK  
Type Designation        YKEA-YKDA 18/24/36/48FS, YKKA-YKJA 18/24/36/48FS, YKEB-YKDB 12/18/24/30/36/48FS,  
YKKB-YKJB 12/18/24/30/36/48FS, YKKC-YKJC 12/18/24/30/36/48FS  
YKKC-YKJC 12-48

Application of Council      EMC Directive 89/336/EEC, Low Voltage Directive 73/23/EEC and Machine Safety Directive: MSD  
Directive (s)

The following harmonized standards have been applied:

Standard (s)

EN 60335-1: 2002+A11  
EN 60335-2-40 : 2003  
EN 50366 : 2003  
EN 55014-1/A2 : 2002  
EN 55104-2/A1 : 2001  
EN 61000-3-2 : 2000  
EN 61000-3-3 : 1995+A1

The product complies with the harmonized European safety standards and harmonized EMC standards listed above.

We have internal production control system that ensures compliance between the manufacturer products and the technical documentation.

The product is CE mark.

We declare under our sold responsibility that the equipment follows the provisions of the Directives stated above.

Authorized Representative:



CM Choi  
Shipping Manager

**YORK International (Northern Asia) Ltd.**  
15/F., Tower II, World Trade Square, 123 Hoi Bun Road, Kwun Tong, Kowloon, Hong Kong  
Telephone: (852) 2331 9286 Fax: (852) 2331 9840  
Technical Service Division: Telephone: (852) 2331 9286 Fax: (852) 2304 0068

## INSTALLATION, REMOVAL AND DISPOSAL

**This product contains refrigerant under pressure, rotating parts, and electrical connections which may be a danger and cause injury!  
All work must only be carried out by competent persons using suitable protective clothing and safety precautions.**



**Read the Manual**



**Risk of electric shock**



**Unit is remotely controlled and  
may start without warning**

1. Isolate all sources of electrical supply to the unit including any control system supplies switched by the unit. Ensure that all points of electrical and gas isolation are secured in the OFF position. The supply cables and gas pipework may then be disconnected and removed. For points of connection refer to unit installation instructions.
2. Remove all refrigerant from each system of the unit into a suitable container using a refrigerant reclaim or recovery unit. This refrigerant may then be reused, if appropriate, or returned to the manufacturer for disposal. **Under No circumstances should refrigerant be vented to atmosphere.** Where appropriate, drain the refrigerant oil from each system into a suitable container and dispose of according to local laws and regulations governing disposal of oily wastes.
3. Packaged unit can generally be removed in one piece after disconnection as above. Any fixing down bolts should be removed and then unit lifted from position using the points provided and equipment of adequate lifting capacity. Reference MUST be made to the unit installation instructions for unit weight and correct methods of lifting. Note that any residual or spilt refrigerant oil should be mopped up and disposed of as described above.
4. After removal from position the unit parts may be disposed of according to local laws and regulations.

